

# Deep Learning Algorithm Applied to Kaggle Ultrasound Nerve Segmentation

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## Abstract

This paper journals the approach taken to apply Deep Learning neural networks to the domain of identifying nerve endings found in ultrasound scanned images.

The images were provided through the Kaggle website and was part of a competition closing 18 August 2016 with a prize money of \$100 000.

*Text based on elsarticle sample manuscript, see <http://www.elsevier.com/author-schemas/latex-instructions#elsarticle>*

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$x^y$

$$\cos(2\theta) = \cos^2 \theta - \sin^2 \theta$$

$$f(x) = (x + a)(x + b) \tag{1}$$

this references the equation [1](#).

Reference is made to (Trevor Hastie 2008).

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- front matter
- keywords and MSC codes
- theorems, definitions and proofs
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Here are two sample references: Feynman and Vernon Jr. (1963; Dirac 1953).

## References

Dirac, P.A.M. 1953. “The Lorentz Transformation and Absolute Time.” *Physica* 19 (1—12): 888–96. doi:[10.1016/S0031-8914\(53\)80099-6](https://doi.org/10.1016/S0031-8914(53)80099-6).

Feynman, R.P, and F.L Vernon Jr. 1963. “The Theory of a General Quantum System Interacting with a Linear Dissipative System.” *Annals of Physics* 24: 118–73. doi:[10.1016/0003-4916\(63\)90068-X](https://doi.org/10.1016/0003-4916(63)90068-X).

Trevor Hastie, Jerome Friedman, Robert Tibshirani. 2008. *Elements of Statistical Learning, 2nd Edition*. Springer.